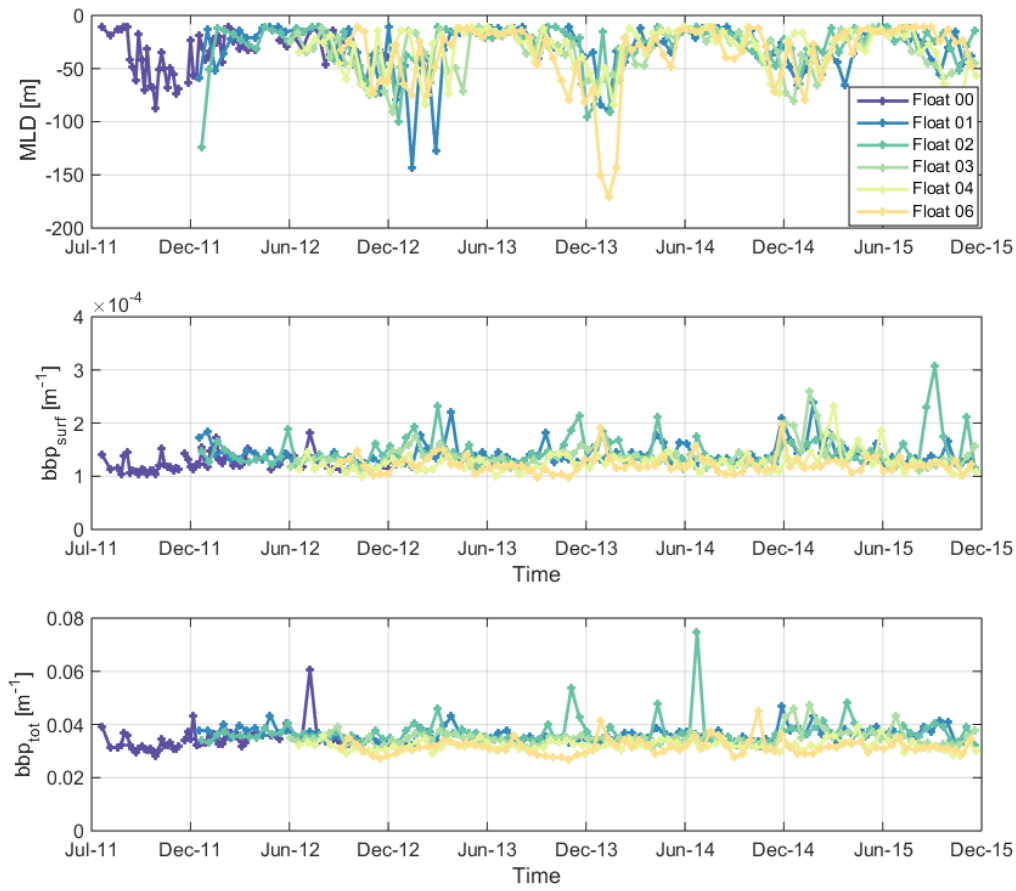
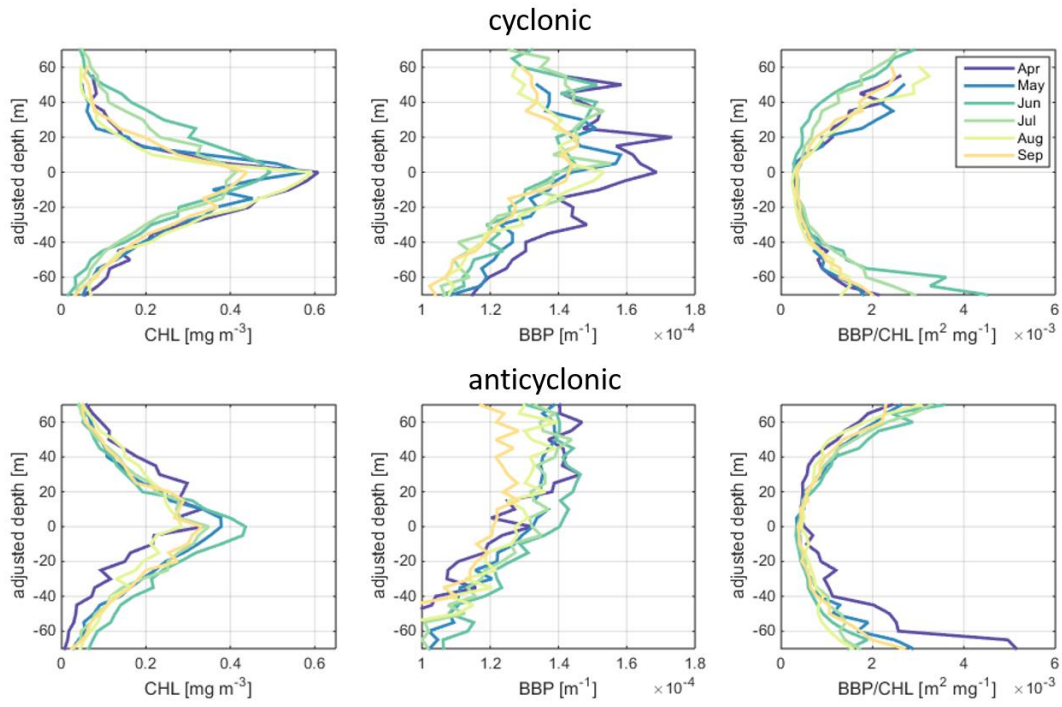


**Figure S1. Monthly mean and standard deviation of: (top) the mixed layer depth, (middle) mean surface chlorophyll concentration, (bottom) integrated content of chlorophyll over the 0-350 m layer, according a criterion based on the SSH (mean value  $\pm$  7cm).**



**Figure S2. Float time-series of the (top) mixed layer depth, (middle) mean surface bbp concentration and (bottom) integrated content of bbp over the 0-350 m layer.**



**Figure S3. Comparison of the mean monthly profiles of [CHL], bbp and bbp/[CHL] ratio, only for the months when the water column is well stratified. The adjusted depth (i.e., depth normalized by the depth of the DCM (Hense and Beckmann, 2008)) has been selected to account for**